

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

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1. (Currently amended) A burst mode optical receiver, comprising:

a differential-differential preamplifying means for detecting a difference between a digital data input signal and a reference signal to thereby generate an output signal;

a reference signal generating means, including a multistage amplifying means and a storing means, for detecting a peak value of the output signal and comparing the output signal with the reference signal through a the multistage amplifying means to thereby generate the-a reference signal corresponding to the peak value of the output signal, and for storing a peak value of the reference signal and providing the reference signal to the differential-differential preamplifying means and the multistage amplifying means through the storing means,

wherein the multistage amplifying means reduces generation of turn-on voltage offsets by the reference signal generating means, to thereby exactly extract the reference signal.

2. (Currently Amended) The burst mode optical receiver of claim 1, wherein the differential-differential preamplifying means includes:

a current source for compensating an offset of the differential-differential preamplifying means.

3. (Original) The burst mode optical receiver of claim 1, wherein the multistage amplifying means includes two or more amplifiers.

4. (Original) The burst mode optical receiver of claim 3, wherein the number of the amplifiers is determined by taking both the gain and a power dissipation of the reference signal generating means into consideration.

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Amend.*

5. (New) The burst mode optical receiver of claim 3, wherein the turn on voltage offsets are reduced by  $1+G^N$ , G being a gain of the amplifiers and N being the number of the amplifiers.

6. (New) The burst mode optical receiver of claim 1, wherein the multistage amplifying means comprises a differential amplifier that includes at least two identical amplifiers,

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